

***LineUp With Math™* Alignment**  
**Academic Standards: Mathematics**

**Standard 1.0 Number and Operations**

Students will recognize, represent, model, and apply real numbers and operations verbally, physically, symbolically, and graphically.

**Learning Expectations**

1.7 Use real numbers to represent real-world applications (e.g., slope, rate of change, probability, and proportionality);

***LineUp With Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.

**Standard 4.0 Measurement**

The student will apply appropriate tools and units of measurement to produce reasonable results..

**Learning Expectations**

4.1 use concepts of length, area, and volume to estimate and solve real-world problems;

***LineUp With Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

4.2 apply and communicate measurement concepts and relationships in algebraic and geometric problem-solving situations.

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

4.3 demonstrate an understanding of rates and other derived and indirect measurements (e.g., velocity, miles per hour, revolutions per minute, cost per unit);

--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.